

Appln. No. 09/893,005
Amd. dated June 17, 2004
Reply to Office Action of March 24, 2004

REMARKS

The Office Action and the cited and applied reference have been carefully reviewed. No claim is allowed. Claims 11-16, 18-21, and 32 presently appear in this application and define patentably subject matter warranting their allowance are hereby respectfully solicited.

Claims 11-16, 18-21 and 32 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The examiner states that the term "grown-up" is indefinite and ambiguous because a "grown-up" plant can be a plant at any stage from germinating seed to seed-set and senescence. This part of the rejection is respectfully traversed.

Attached hereto is a copy of "Websters New World Dictionary of the American Language", second college edition, p. 19 and 619 (1984). It is clear from the definitions in the dictionary that "grown-up" means "adult" and that "adult" means "an animal or plant that is fully developed". Therefore, those of skill in the art would understand from the dictionary that the term "grown-up" plant means a plant which is fully developed and never means "a plant of any stage from germinating seed to seed-set and senescence" as held by the examiner." In fact, the specification discloses as follows:

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The edible parts (underground tissues) were harvested from the carrots that had grown-up at page 20, lines 3-5; and

The edible parts (aboveground parts) were harvested from the plants that had grown-up at page 23, lines 16-18.

Clearly, the term "grown-up" in these statements is used to mean fully developed plant parts that can be harvested.

The examiner states that claim 20 is unclear because it does not state what is kept and what is discarded from the grown-up transgenic plant by cut, peeled, pulverized, or extracted. Claim 20 is now amended to define the grown-up transgenic plant in a cut, peeled, pulverized, squeezed, or extracted form as containing an effective amount of the expressed cytokine.

The remaining indefiniteness issues are obviated by the amendment to the claims.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Claims 11-16, 18-20 and 32 remain rejected under 35 U.S.C. §102(b) as being anticipated by Goodman et al., U.S. Patent 4,956,282. This rejection is respectfully traversed.

The examiner states as the grounds for the rejection that Goodman teaches "A transgenic plant produced from an edible plant (column 4, lines 57-60). The examiner further states that Goodman teaches a transgenic plant "where the plant is in the

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form of tissue isolated from the whole plant body" (column 4, lines 55-63, column 5, lines 51-59).

It is respectfully submitted however that the examiner is not correct. The disclosures cited by the examiner as the support for the examiner's position state as follows:

Plant cells which are employed may be either monocots or dicots and will be chosen in accordance with the manner in which the desired gene is to be produced and harvested. Plants which may find use include tobacco, sunflower, corn, sugar cane, soybean, tomato, alfalfa, mustard, sugar beet, rapeseed, etc. The product may be found in plant parts such as seed, leaves, fruit, roots, stalks, tubers, or combinations thereof (column 4, lines 55-63).

In some instances it may be neither necessary nor desirable to extract and isolate the mammalian protein product from the plant. Where the product can have a physiological effect on ingestion, it may be sufficient that the product be retained with the plant. This will be true where the plant part is edible, such as fodder which could include nutritional qualities, such as bovine growth hormone, seed, nuts, fruit, and vegetables, which could include proteins involved in the regulation of digestion, or the like (column 5, lines 51-59) (emphasis added)

Applicants believe that it is apparent that all the statements are Goodman's forecast or Goodman's wishes because Goodman uses "may" in every sentence. Applicants therefore submit that, while

the examiner takes the position as if Goodman discloses a transgenic plant *per se* and a transgenic plant in the form of tissue isolated from the whole plant body, the statements in Goodman are not based on fact. In other words, Goodman did not succeed in obtaining either a transgenic plant *per se* or a transgenic plant in the form of tissue isolated from the whole plant body. In this regard, it is believed that the examiner's position is not correct.

Furthermore, as argued in the previous response, it is not a "grown-up" transgenic plant but just a plant "callus" that Goodman obtained through his experiment. A "callus" is a kind of tissue at a certain stage of differentiation and is difficult to be recognized as a plant. It should be noted that Goodman's invention was made to provide efficient production of physiologically active mammalian protein (see column 1, lines 64-65). Goodman teaches "plant cells" instead of microorganisms. Accordingly, what are necessary to Goodman are just "plant cells", i.e., "callus", as a factory for producing physiologically active protein. For Goodman, a "callus" producing physiologically active protein is sufficient and it is not necessary to obtain a "grown-up" plant. Obtaining a "grown-up" plant is time- and money-consuming work and is even risky because it would have been uncertain for Goodman whether all the

cells in a "grown-up" plant produce the physiologically active protein. Please note that differentiation from "callus" to a "grown-up" plant is not a simple mechanism. It is therefore reasonably considered that Goodman's invention was completed when a "callus" producing a physiologically active protein was obtained. Therefore, Goodman did not obtain a "grown-up" transgenic plant that produces a physiologically active protein.

On the other hand, the presently claimed invention is directed to a "grown-up" transgenic plant. Amended claim 11 defines the amount of cytokine in a grown-up transgenic plant as 0.1 ng to one milligram per one kilogram by fresh weight of the grown-up transgenic plant. Such an amount of a cytokine in the "grown-up" transgenic plant as well as a "grown-up" transgenic plant are not disclosed in Goodman. Accordingly, Goodman cannot anticipate the presently claimed invention.

The examiner further states that if Goodman is not enabled, then neither is the presently claimed invention since the examiner alleges that the specification does not recite any particular steps from callus to plant. With due respect to the examiner, the examiner's reasoning is faulty.

The specification discloses in Example 2 at pages 19-21, for example, a process to obtaining a "grown-up" transgenic carrot. In Example 2, the human interferon- α 2 gene was

transferred into a carrot callus by utilizing *Agrobacterium*, and then the callus was regenerated into a juvenile plant body. From each juvenile plant body, a part was collected and homogenized to be examined by PCR to see if the interferon- α 2 gene exists in it. A juvenile plant body which contains the interferon- α 2 gene was selected and planted in a test garden to obtain a "grown-up" transgenic carrot. While Example 2 simply discloses the processes actually conducted, there was much trial and error before arriving at the described processes. Applicants believe that the processes are novel and have never be disclosed in Goodman. In other words, Goodman provides no teaching about how to obtain a "grown-up" transgenic plant.

Furthermore, as recited in amended claim 11, the DNA sequence to be introduced has a constitutive regulatory sequence, inducible regulatory sequence, or tissue specific regulatory sequence. The paragraph bridging pages 5 and 6 of the specification and Example 1-1 at pages 15 to 16 (see page 16, lines 21-22, where "cauliflower mosaic virus 35S promoter" is disclosed) provides supports for various regulatory sequences.

In contrast, Goodman neither discloses nor teaches a regulatory sequence which is to be introduced into plant cells along with a DNA which encodes a cytokine. In this regard too,

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applicants believe that the presently claimed invention is not anticipated by Goodman.

In view of the above, it is submitted that the presently claimed "grown-up" transgenic plant is distinct over Goodman's disclosure insofar as:

- (i) it is a "grown-up" transgenic plant,
- (ii) it comprises a "cytokine in an amount of 0.1 ng to one milligram per one kilogram by fresh weight of the grown-up transgenic plant", and
- (iii) it contains an introduced DNA having a constitutive regulatory sequence, inducible regulatory sequence, or tissue specific regulatory sequence.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Claims 11-16, 18-21 and 32 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Goodman, as discussed above, in view of Vogel et al., J. Exper. Botany 52:1817-1826 (2001). This rejection is respectfully traversed.

As discussed above, Goodman does not disclose a "grown-up" transgenic plant of the presently claimed invention. Vogel et al. also do not disclose a "grown-up" transgenic plant of the presently claimed invention. Accordingly, applicants believe

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that it would have been difficult at the time the present invention was made for even a skilled artisan to reasonably expect that the presently claimed invention could be achieved. The combination of Goodman and Vogel simply cannot lead one of ordinary skill in the art to the present invention.

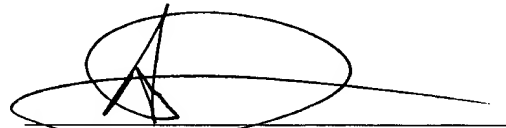
Reconsideration and withdrawal of the rejection are therefore respectfully requested.

In view of the above, the claims comply with 35 U.S.C. §112 and define patentable subject matter warranting their allowance. Favorable consideration and early allowance are earnestly urged.

Respectfully submitted,

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By

A handwritten signature in black ink, appearing to be "Allen C. Yun", is written over a horizontal line. The signature is stylized with a large loop and a long horizontal stroke extending to the right.

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course) 4. to vote to accept (a committee report, motion, etc.) 5. to select as a required textbook — **a-dopt'a-ble** *adj.* — **a-dopt'ee' n.** — **a-dopt'er n.** — **a-dop'tion n.**

a-dop-tive (ə dāp'tiv) *adj.* [*L. adoptivus*] 1. having to do with adoption 2. that has become so by the act of adoption [*adoptive* parents] — **a-dop'tive-ly** *adv.*

a-dor'a-ble (ə dōr'ə b'l) *adj.* [*Fr. < L. adorabilis*] 1. [Now Rare] worthy of adoration or love 2. [Colloq.] delightful; charming — **a-dor'a-bil'i-ty**, **a-dor'a-ble-ness n.** — **a-dor'a-bly** *adv.*

ad-o-ra-tion (ad'ə rā'shən) *n.* [*Fr. < L. adoratio*] 1. a worshiping or paying homage, as to a divinity 2. great love, devotion, and respect

a-dore (ə dōr') *vt.* **a-dored'**, **a-dor'ing** [*ME. adouren < OFr. adouren < L. adorare, to worship < ad-, to + orare, to speak < os (gen. oris), a mouth*] 1. to worship as divine 2. to love greatly or honor highly; idolize 3. [Colloq.] to like very much — **SYN.** see REVERE — **a-dor'er n.** — **a-dor'ing-ly** *adv.*

a-dorn (ə dōrn') *vt.* [*ME. adornen (altered after L.) < OFr. aourner < L. adornare < ad-, to + ornare, to deck out*] 1. to be an ornament to; add beauty, splendor, or distinction to 2. to put decorations on; ornament — **SYN.** — **adorn** is used of that which adds to the beauty of something by gracing it with its own beauty [roses adorned her hair]; **decorate** implies the addition of something to render attractive what would otherwise be plain or bare [to decorate a wall with pictures]; **ornament** is used with reference to accessories which enhance the appearance [a crown ornamented with jewels]; **embellish** suggests the addition of something highly ornamental or ostentatious for effect; to **beautify** is to lend beauty to, or heighten the beauty of; **bedeck** emphasizes the addition of showy things [bedecked with jewelry]

a-dorn-ment (-mənt) *n.* 1. an adorning or being adorned 2. a decoration or ornament

A-do-wa (ā'də wā') *same as* ADUWA

a-down (ə daʊn') *adv., prep.* [*ME. adoun < OE. adun: see DOWN*] [*Poet.*] down

ADP [A(DENOSINE) d(i)p(hosphate)] a substance, C₁₀H₁₅N₅O₁₀P₂, found in all living cells and vital to the energy processes of life: during the oxidation of carbohydrates ADP is converted to ATP, and the resulting energy is stored in the ATP molecule, which is converted back to ADP in the process of releasing the energy, as in muscular contraction

ad quem (ad' kwem') [*L.*] to or at which

A-dras-tus (ə dras'təs) *Gr. Myth.* a king of Argos who led the SEVEN AGAINST THEBES

ad rem (ad' rem') [*L.* to (the) thing] to the point at issue; to the matter in hand

ad-re-nal (ə drē'n'l) *adj.* [*AD- + RENAL*] 1. near the kidneys 2. of or from the adrenal glands — *n.* an adrenal gland

adrenal gland either of a pair of endocrine organs lying immediately above the kidney, consisting of an inner medulla which produces epinephrine and norepinephrine, and an outer cortex which produces a variety of steroid hormones

★Ad-ren-al-in (ə dren'əl in) [*ADRENAL + -IN*: so named (1901) by Dr. J. Takamine, U.S. chemist who first isolated it] a trademark for EPINEPHRINE — *n.* [a-] epinephrine: also **ad-ren'al-ine** (-in)

ad-ren-er-gic (ad'rə nur'jik) *adj.* [*< ADREN(AL) + Gr. erg(ōn), WORK + -IC*] 1. releasing epinephrine or a similar substance [the adrenergic nerves of the sympathetic nervous system] 2. like epinephrine in chemical activity [an adrenergic drug]

ad-re-no- (ə drē'nō) a combining form meaning: 1. adrenal glands [*adrenocortical*] 2. epinephrine [*adrenergic*] Also, before a vowel, **adren-**

ad-re-no-cor-ti-cal (ə drē' nō kōr'ti k'l) *adj.* of, or produced in, the cortex of the adrenal glands

ad-re-no-cor-ti-co-tro-phic (-kōr'ti kō trāf'ik) *adj.* [*< ADRENO- + CORTIC(AL) + TROPHIC*] that can stimulate the cortex of the adrenal glands: also **ad-re'no-cor'ti-co-trop'ic**

adrenocorticotrophic hormone *same as* ACTH

A-dri-an (ā'drē ən) [*L. Adrianus, Hadrianus < Adria, Hadria, name of two Italian cities*] 1. masculine name 2. **Adrian IV** (*Nicholas Breakspear*) 1100?-59; Pope (1154-59): the only Eng. Pope 3. **E(dgar) D(ouglas)**, 1st Baron, 1889-1977; Eng. neurophysiologist

A-dri-an-o-ple (ā'drē ə nō'p'l) *former name of* EDIRNE

A-dri-an-op-o-lis (-nāp'ə lis) *ancient Rom. name of* EDIRNE

A-dri-at-ic (Sea) (ā'drē at'ik) sea between Italy and Yugoslavia: it is an arm of the Mediterranean — **A-dri-at'ic** *adj.*

a-drift (ə drift') *adv., adj.* 1. floating freely without being steered; not anchored; drifting 2. without any particular aim or purpose

a-droit (ə droit') *adj.* [*Fr. à, to + droit, right < L. directus, pp. of dirigere, DIRECT*] skillful in a physical or mental way; clever; expert [his adroit handling of an awkward situation] — **SYN.** see DEXTEROUS — **a-droit'ly** *adv.* — **a-droit'-ness n.**

ad-sci-ti-tious (ad'sə tish'əs) *adj.* [*< L. adscitus, pp. of adsciscere, to receive with knowledge, approve < ad-, to + sciscere, to seek to know < scire, to know*] added from an external source; supplemental

ad-script (ad'skript) *adj.* [*L. adscriptus, pp. of adscribere < ad-, to + scribere, to write*] written after

ad-scrip-tion (ad skrip'shən) *n.* *same as* ASCRIPTION

ad-sorb (ad sōrb', -zōrb') *vt.* [*< AD- + L. sorbere (cf. ABSORB)*] to collect (a gas, liquid, or dissolved substance) in condensed form on a surface — **ad-sorb'a-ble** *adj.*

ad-sor-bate (ad sōr'bāt, -zōr'-) *n.* a gas, liquid, etc. taken up by adsorption

ad-sor-bent (-bənt) *adj.* that is capable of adsorbing — *n.* a thing or substance that adsorbs

ad-sorp-tion (ad sōrp'shən, -zōrp'-) *n.* [*< ADSORB, after ABSORPTION*] an adsorbing or being adsorbed; adhesion of the molecules of a gas, liquid, or dissolved substance to a surface — **ad-sorp'tive** *adj.*

ad-su-ki bean (ad sōk'ē, -zōk'-) *same as* ADZUKI BEAN

ad-u-lar-i-a (aj'ə lər'ē ə) *n.* [*It. < Fr. adulaire < Adula, a group of mountains in Switzerland + -aire, -ARY*] a translucent kind of orthoclase, as the moonstone

ad-u-late (aj'ə lāt') *vt.* -lat'ed, -lat'ing [*< L. adulatus, pp. of adulari, to fawn upon*] to praise too highly or flatter servilely — **ad'u-la'tion n.** — **ad'u-la'tor n.** — **ad'u-la-to'ry** (-lə tōr'ē) *adj.*

a-dult (ə dult', ad'ult) *adj.* [*L. adultus, pp. of adolescere: see ADOLESCENT*] 1. grown up; mature in age, size, strength, etc. 2. of or for adult persons [an adult novel] — *n.* 1. a man or woman who is fully grown up; mature person 2. an animal or plant that is fully developed 3. a person who has reached an age set by law that qualifies him for full legal rights, in common law generally 21 years — **SYN.** see RIPE — **a-dult'hood n.** — **a-dult'ness n.**

a-dul-ter-ant (ə dult'tər ənt) *n.* a substance that adulterates — *adj.* adulterating; making inferior or impure

a-dul-ter-ate (ə dult'tər āt'; for *adj.* -tər-it) *vt.* -at'ed, -at'ing [*< L. adulteratus, pp. of adulterare, to falsify < adulter, an adulterer, counterfeiter < ad-, to + alter, other, another*] to make inferior, impure, not genuine, etc. by adding a harmful, less valuable, or prohibited substance — *adj.* 1. guilty of adultery; adulterous 2. adulterated; not genuine — **a-dul'ter-a'tor n.**

a-dul-ter-at-ed (-rāt'id) *adj.* 1. made inferior, impure, etc. by adulterating 2. that does not conform to legal standards of purity, processing, labeling, etc.

a-dul-ter-a-tion (ə dult'tər ā'shən) *n.* 1. an adulterating or being adulterated 2. an adulterated substance, commodity, etc.

a-dul-ter-er (ə dult'tər ər) *n.* [altered, after *L. adulterare, from MB. avouterer, avouter < OFr. avouter < avouter, to commit adultery < L. adulterare: see ADULTERATE*] a person (esp. a man) guilty of adultery — **a-dul'ter-ess** (-tər is, -tris) *n. fem.*

a-dul-ter-ine (ə dult'tər in, -tər in') *adj.* [*L. adulterinus < adulter: see ADULTERATE*] 1. of adultery 2. due to adulteration

a-dul-ter-ous (-tər əs) *adj.* relating to, characterized by, or guilty of, adultery — **a-dul'ter-ous-ly** *adv.*

a-dul-ter-y (ə dult'tər ē) *n., pl. -ter-ies* [*L. adulterium < adulter: see ADULTERATE*] voluntary sexual intercourse between a married man and a woman not his wife, or between a married woman and a man not her husband

ad-um-bral (ad um'brəl) *adj.* [see ff.] in shadow; shady

ad-um-brate (ad um'brāt, ad'əm brāt') *vt.* -brat-ed, -brat-ing [*< L. adumbratus, pp. of adumbrare, to shade < ad-, to + umbra, shade*] 1. to outline in a shadowy way; sketch 2. to suggest beforehand; foreshadow in a vague way 3. to obscure; overshadow — **ad-um'bra'tion** (-brā'shən) *n.* — **ad-um'bra-tive** (-brā tiv) *adj.*

a-dunc (ə dʌŋk') *adj.* [*L. aduncus < ad-, to + uncus, hooked, a hook < IE. base *ang-, ank-: see ANGLE*] curving inward, as a parrot's beak: also **a-dun-cous** (ə dʌŋ'kəs)

a-dust (ə dust') *adj.* [*L. adustus, pp. of adurere, to burn up < ad-, to + urere, to burn: see EMBER*] 1. scorched; burned 2. parched 3. sunburned 4. sallow and melancholy

A-du-wa (ā'doo wā') town in N Ethiopia: pop. c. 10,000

adv. 1. ad valorem 2. adverb 3. adverbial 4. advertisement 5. advisory 6. advocate 7. [*L. adversus*] against

ad val. ad valorem

ad va-lo-rem (ad' vā lōr'əm) [*L.*] in proportion to the value: a phrase applied to certain duties levied on imports according to their invoiced value

ad-vance (əd vāns', -vāns') *vt.* -vānced', -vānc'ing [*ME. avançen < OFr. avancer, to forward < VL. *abanitare < L. ab-, from + ante, before: spelling ad- by association with L. ad-, to, forward*] 1. to bring forward; move forward [to advance a chessman] 2. to raise in rank, importance, etc.; promote 3. to help or hasten the success or completion of; further [to advance a project] 4. to put forward; propose 5. to bring closer to the present; specif. a) to cause (a future event) to happen earlier b) to assign a later date to (a past event) 6. to raise the rate of; increase [to advance prices] 7. to pay (money) before due 8. to lend — *vi.* 1. to go forward; move ahead 2. to make progress; im-

fat, āpe, cār; ten, āven; is, bīte; gō, hōrn, tōōl, look; oil, out; up, fūr; get; joy; yet; chin; she; thin; shen; zh, leīsure; ŋ, ring; ē for a in ago, e in agent, i in sanity, o in comply, u in focus; ' as in able (ā'b'l); Fr. bāl; ē, Fr. coeur; ō, Fr. feu; Fr. mon; ō, Fr. coq; ū, Fr. duc; r, Fr. cri; H, G. ich; kh, G. doch. See inside front cover. ★ Americanism; † foreign; * hypothetical; < derived from

grovel (gruv'v'l, gräv'-) *vi.* -eled or -elled, -el-ing or -el-ling [back-formation (first found in Shakespeare) < *groveling*, down on one's face (assumed to be *prp.*) < ME. *grufelinge* < *gruf*, for *o grufe*, on the face (< ON. *ā grūfu*) + -ling, -LING²]. 1. to lie prone or crawl in a prostrate position, esp. abjectly 2. to behave humbly or abjectly, as before authority; debase oneself in a servile fashion 3. to wallow in what is low or contemptible — *grovel'er*, *grovel'er* *n.*

grow (grō) *vi.* grew, grown, grow'ing [ME. *growen* < OE. *growan*, akin to ON. *grōa*, OHG. *gruoen* < IE. base **ghrō-*, to grow, turn green, whence GREEN, GRASS] 1. to come into being or be produced naturally; spring up; sprout 2. to exist as living vegetation; thrive [cactus *grows* in sand] 3. to increase in size and develop toward maturity, as a plant or animal does by assimilating food 4. to increase in size, quantity, or degree, or in some specified manner [to *grow* in wisdom] 5. to come to be; become [to *grow* weary] 6. to become attached or united by growth — *vt.* 1. to cause to grow; raise; cultivate 2. to cover with a growth; used in the passive 3. to allow to grow [to *grow* a beard] 4. to cause to be or to exist; develop — *grow into* 1. to develop so as to be [a boy *grows into* a man] 2. to grow or develop so as to fit or be suited to — *grow on* to have a gradually increasing effect on; come gradually to seem more important, dear, or admirable to — *grow out of* 1. to develop from 2. to outgrow — *grow up* 1. to reach maturity; become adult or attain full growth 2. to come to be; develop; arise — *grow'er* *n.*

growing pains 1. recurrent pains in the joints and muscles, esp. of the legs, of growing children: a loose term with no precise medical meaning 2. difficulties experienced in the early development of an institution or enterprise

growing point the apex of a stem or root, containing actively dividing and elongating cells

growl (groul) *vi.* [ME. *groulen*, to rumble < ? OFr. *grouler*, prob. < MDu. *grollen*, to be noisy, grumble] 1. to make a low, rumbling, menacing sound in the throat, as a dog does 2. to complain in an angry or surly manner 3. to rumble, as thunder, cannon, etc. — *vt.* to express by growling — *n.* 1. the act or sound of growling 2. *Jazz* a growling sound produced on a trumpet, trombone, etc. — *growl'ing-ly* *adv.*

growler (-ər) *n.* 1. a person, animal, or thing that growls 2. [Slang] *a*) formerly, a pail or can to carry out beer bought at a saloon, etc. *b*) a keg of beer, equal to 1/8 barrel 3. a small iceberg 4. an electromagnetic device used to find short circuits in coils and for magnetizing and demagnetizing

grown (grōn) *pp.* of GROW — *adj.* 1. having completed its growth; fully developed; mature 2. covered with a specified growth 3. cultivated as specified [home-grown]

grown-up (grōn'up; for *n.* -up') *adj.* -I. that is an adult 2. of, for, or like an adult — *n.* an adult; also *grown'up*

growth (grōth) *n.* 1. the process of growing or developing; specif., *a*) gradual development toward maturity *b*) formation and development 2. *a*) degree of increase in size, weight, power, etc. *b*) the full extent of such increase 3. something that grows or has grown [a thick *growth* of grass] 4. an outgrowth or offshoot 5. a tumor or other abnormal mass of tissue developed in or on the body

growth factor any element in the nutriment or diet of an organism whose absence prevents normal growth

growth hormone 1. a polypeptide hormone of the anterior part of the pituitary gland, that promotes normal growth 2. any of various substances that promote growth, as of plants, beef cattle, etc.

growth stock a stock that is expected to grow in value, chiefly because of the company's policy of retaining much of its profits for expansion, and that pays relatively low dividends

Grozny (grōz'nē) city in the SW R.S.F.S.R., at the northern foot of the Caucasus Mountains: pop. 319,000

grub (grub) *vi.* grubbed, grub'bing [ME. *grubben*, to dig, prob. < OE. **grybban* (akin to OHG. *grubilōn*, to bore into): for IE. base see GRAVE²] 1. to dig in the ground 2. to work hard, esp. at something menial or tedious; drudge 3. to search about; rummage 4. [*< n.* 3] [Old Slang] to eat — *vt.* 1. to clear (ground) of roots and stumps by digging them up 2. to dig up by or as by the roots; root out; uproot — *n.* [ME. *grubbe*, prob. < the *v.*] 1. the short, fat, wormlike larva of an insect, esp. of a beetle 2. a person who works hard at some menial or tedious work; drudge 3. [*< ?* notion "what is grubbed for"] [Slang] food — *grub'ber* *n.*

grub-by (-ē) *adj.* -bi-er, -bi-est 1. infested with grubs, esp. with botfly larvae, as cattle or sheep 2. dirty; messy; untidy 3. inferior, contemptible, mean, etc. — *grub'bi-ly* *adv.* — *grub'bi-ness* *n.*

grub-stake (-stāk') *n.* [GRUB, *n.* 3 + STAKE] [Colloq.] 1. money or supplies advanced to a prospector in return for a share in his findings 2. money advanced for any enterprise — *vt.* [Colloq.] -staked', -stak'ing to provide with a grubstake — *grub'stak'er* *n.*

Grub-street (grub'strēt') *n.* [*< earlier name of a London street where many literary hacks lived*] literary hacks — *adj.* [also *g-*] of or like literary hacks or their work

grudge (gruj) *vi.* grudged, grudge'ing [LME. *gruggen*, var.

of *grucchen* < OFr. *grouchier*] 1. to envy and resent (someone) because of his possession or enjoyment of (something); begrudge [to *grudge* a person his success] 2. to give with reluctance [the miser *grudged* his dog its food] — *n.* 1. a strong, continued feeling of hostility or ill will against someone over a real or fancied grievance 2. a reason or cause for this — *SYN.* see MALICE — *grudge'ing-ly* *adv.*

grue (grō) *n.* [*< grue*: see GRUESOME] a shudder of fear

gru-el (grō'el, grōol) *n.* [ME. < OFr., coarse meal < ML. **grutellum*, dim. of *grutum*, meal, mash < Gmc. **grut*, hulled dried grain, akin to GROATS] 1. thin, easily digested broth made by cooking meal in water or milk: it is often fed to invalids 2. [Brit. Colloq.] punishment

gru-el-ing, **gru-el-ling** (-in) *adj.* [prp. of obs. *v.* *gruel*, to punish: see prec.] extremely trying; exhausting — *n.* [Brit.] harsh treatment or punishment

grue-some (grō'səm) *adj.* [*< dial. grue*, to shudder (< ME. *gruwen*, akin to MHG. *gruwen*) + -SOME¹] causing horror or loathing; grisly — *SYN.* see GHASTLY — *grue'some-ly* *adv.* — *grue'some-ness* *n.*

gruff (gruf) *adj.* [*< Early ModDu. grof*, akin to G. *grob*, coarse, surly < OHG. *grob* < *ge-*, intens. + base akin to OE. *hreofo*, rough, scabby < IE. base **kreup-*, scurf] 1. rough or surly in manner or speech; brusquely rude 2. harsh and throaty; hoarse — *SYN.* see BLUNT — *gruff'ly* *adv.* — *gruff'ness* *n.*

gru-gru (grō'grō) *n.* [Sp. *grugrú*, prob. < native Carib name] 1. a West Indian palm (*Acrocomia sclerocarpa*) with spiny trunk and leaves and edible nuts 2. the large, wormlike, edible larva of a weevil (*Rhynchophorus palmarum*) infesting this palm

grum (grum) *adj.* *grum'mer*, *grum'mest* [*< ? GR(IM) + (GL)UM*] [Now Rare] gloomy or glum

grum-ble (grum'b'l) *vi.* -bled, -bling [prob. < Du. *grommelen*, akin to G. *grummeln*, OE. *gremman*, to enrage; for IE. base see GRIM] 1. to make low, unintelligible sounds in the throat; growl 2. to mutter or mumble in discontent; complain in a surly or peevish manner 3. to rumble, as thunder — *vt.* to express by grumbling — *n.* 1. the act of grumbling, esp. in complaint 2. a rumble — *grum'bler* *n.* — *grum'bling-ly* *adv.* — *grum'bly* *adv.*

grume (grōm) *n.* [*< LL. grumus*, little heap: for IE. base see CRUMB] [Rare] 1. a thick, sticky fluid 2. a clot of blood

grum-met (grum'it) *n.* same as GROMMET

grump (grump) *n.* [prob. echoic of ill-tempered cry] 1. [often *pl.*] a fit of bad humor 2. a grumpy person — *vi.* to complain and grumble

grump-y (grum'pē) *adj.* *grump'i-er*, *grump'i-est* [prec. + -y²] grouchy; peevish; bad-tempered; also *grump'ish* — *grump'i-ly* *adv.* — *grump'i-ness* *n.*

Grun-dy, Mrs. (grun'dē) [a neighbor repeatedly referred to (but never appearing) in Tom Morton's play *Speed the Plough* (1798) with the question "What will Mrs. Grundy say?"] a personification of conventional social disapproval, prudishness, narrow-mindedness, etc. — *Grun'dy-ism* *n.*

Grü-ne-wald (grü'na vält'), *Mat-thi-as* (mā tē'ās) (born Mathis Neithardt-Golhardt) 1480?-1528?; Ger. painter

grun-gy (grun'jē) *adj.* -gi-er, -gi-est [*? a blend of GRIMY, DINGY & grunt*, childish euphemism for "defecate"] [Slang] dirty, messy, disreputable, etc.; unpleasant in any way

grun-ion (grun'yən) *n.*, *pl.* -ion, -ions: see PLURAL, II, D, 2 [prob. < Sp. (colloq.) *gruñón*, grunter] a sardine-shaped fish (*Leuresthes tenuis*) of the California coast: it spawns on sandy beaches during certain spring tides

grunt (grunt) *vi.* [ME. *grunten* < OE. *grunnellan* (akin to G. *grunzen*, freq. of *grunian*, to grunt: origin echoic, as in L. *grunnire*)] 1. to make the short, deep, hoarse sound of a hog 2. to make a sound like this, as in annoyance, contempt, effort, etc. — *vt.* to express by grunting [to *grunt* one's disapproval] — *n.* 1. the sound made in grunting 2. any of various related saltwater fishes (family Haemulidae) that grunt when removed from water 3. [Slang] a U.S. infantryman in the war in Vietnam

grunt-er (-ər) *n.* [ME. *gruntare*] 1. a person or animal that makes a grunting sound; esp., a hog 2. same as GRUNT (*n.* 2)

Gru-yère (cheese) (grō yer', grē-, Fr. grü yer') [*< Gruyère*, district in W Switzerland, where first produced] a light-yellow Swiss cheese, very rich in butterfat, or an American cheese resembling this

gr. wt. gross weight

gryph-on (grif'ən) *n.* same as GRIFFIN

G.S., **g.s.** 1. general secretary 2. general staff 3. ground speed

GSA, **G.S.A.** 1. General Services Administration 2. Girl Scouts of America

G-string (jē'strin') *n.* [*< ?*] 1. a narrow loincloth 2. a similar cloth or band, usually with spangles or tassels, as worn by striptease dancers

G-suit (-sōt') *n.* [*G* for *gravity*] a garment for pilots or astronauts, pressurized to counteract the effects of rapid acceleration or deceleration or of the force of gravity

GT gross ton

gt. 1. gilt 2. great 3. *pl.* gtt. Pharmacy gutta

Gt. Brit., **Gt. Br.** Great Britain

fat, āpe, cār; ten, ēven; is, bīte; gō, hōrn, tōol, look; oil, out; up, fēr; get; joy; yet; chin; she; thin, then; zh, leisure; ŋ, ring; ā for a in ago, e in agent, i in sanity, o in comply, u in focus; ' as in able (ā'b'l); Fr. bāl; ē, Fr. coeur; ô, Fr. feu; Fr. mōn; ô, Fr. coq; ū, Fr. duc; r, Fr. cri; H, G. ich; kh, G. doch. See inside front cover. ☆ Americanism; † foreign; * hypothetical; < derived from